

Amendments to the Claims:

The following listing of claims replaces all other prior listings of claims.

1. (currently amended) ~~Apparatus for controlling the flow of fluid into a borehole through a conduit, the apparatus comprising a decelerating means~~ A flow control insert adapted to be positioned within ~~the a downhole conduit, the flow control insert comprising a decelerating means~~ for slowing down the flow of fluid through the downhole conduit, wherein the decelerating means comprises a passage which includes at least one spiral portion and an axial portion at each of its ends.
2. (cancelled)
3. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 1 2, wherein the passage is defined by at least one body member having formations thereon.
4. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 3, including a shoe adapted for engagement with the at least one body member.
5. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 4, including an anti-rotation means to prevent relative rotation of the at least one body member and the shoe.
6. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 5, wherein the anti-rotation means includes a device shaped to engage a bore provided in the shoe.
7. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 5, wherein the anti-rotation means comprises a tapered edge provided on one of the device and the shoe and a correspondingly shaped groove provided on the other of the device and the shoe.
8. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 6, including an axial locking means to prevent axial separation of the device and the shoe.

9. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 8, wherein the axial locking means comprises a latch provided on one of the device and the shoe, and a groove provided on the other of the device and the shoe.

10. (currently amended) ~~Apparatus~~ A flow control insert as claimed in ~~claim 8 when dependent on claim 6~~ 5, also including an axial locking means to prevent axial separation of the device and the shoe, and wherein the anti-rotation means prevents relative rotation of the at least one body member and the shoe once the axial locking means has engaged.

11. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 3, wherein the apparatus includes a shroud which is disposed around the at least one body member.

12. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 11, wherein the shroud is provided with apertures in the side wall thereof.

13. (cancelled)

14. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 1 ~~2~~, wherein the passage has constant dimensions.

15. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 1 ~~2~~, wherein the boundaries of the passage are smooth and free of obstructions.

16. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 1 ~~2~~, wherein the passage is inclined relative to the axis of the conduit and wherein deceleration of the fluid is caused by friction between the fluid and the inclined passage.

17. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 1 ~~2~~, wherein the passage is inclined relative to a plane perpendicular to the axis of the conduit.

18. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 16, wherein the inclination of the passage is continual throughout the length of the passage.
19. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 12, wherein the passage is uni-directional in the axial direction.
20. (cancelled)
21. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 120, wherein the angle of the spiral portion of the passage is more than 60 degrees relative to the axis of the conduit.
22. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 120, wherein the angle of the spiral portion of the passage is between 70 degrees and 80 degrees relative to the axis of the conduit.
23. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 12, wherein the passage includes at least one portion which spirals in a first spiral direction and at least one further portion which spirals in a second opposite spiral direction.
24. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 23, wherein a cavity is provided between the at least two oppositely directed spiral passage portions.
25. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 1, wherein the decelerating means is adapted to induce turbulence into the fluid.
26. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 25, wherein the turbulence is at least partially induced by a direction altering means which causes a change in the flow direction.

27. (currently amended) ~~Apparatus~~ A flow control insert as claimed in ~~claim 25 when dependent on claim 23,~~ wherein the decelerating means is adapted to induce turbulence into the fluid ~~wherein the turbulence is induced in the cavity between the at least two oppositely-directed spiral passage portions.~~

28. (currently amended) ~~Apparatus~~ A flow control insert as claimed in claim 1, wherein the conduit is selected from the group consisting of drillpipe, tubing, coiled tubing, filtration screen, casing and liner string.

29. (currently amended) A control assembly, including:

control apparatus for controlling the flow of fluid into a borehole through a downhole conduit, the apparatus comprising a decelerating means adapted to be positioned within the downhole conduit for slowing down the flow of fluid through the downhole conduit, the decelerating means comprising a passage in the apparatus, the passage including at least one spiral portion;

a downhole conduit in which the control apparatus is located; and

a valve located in the conduit above the apparatus;

wherein the cross-sectional area of the passage in the apparatus is greater than the cross-sectional area of the valve.

30. (original) An assembly as claimed in claim 29, wherein the valve is located in a float collar.

31. (currently amended) A method of controlling the passage of fluid through a downhole conduit located in a borehole, including the step of decelerating the fluid through a decelerating means positioned within the downhole conduit, the decelerating means causing the fluid to change direction from an axial direction to a spiral direction and back to the axial direction.

32. (original) A method as claimed in claim 31, including the step of causing the fluid to deviate from the conduit into a passage which is inclined relative to the conduit axis.

33. (original) A method as claimed in claim 32, wherein the fluid is decelerated by friction between the fluid and the boundaries of the inclined passage.
34. (previously presented) A method as claimed in claim 32, wherein the inclined passage has constant dimensions and the boundaries of the passage are free of obstructions so that the fluid moves along the passage without hindrance.
35. (cancelled)
36. (currently amended) A method as claimed in claim 31~~35~~, wherein the fluid is caused to travel in a tight spiral so that it travels through a large distance in a small axial space.
37. (currently amended) A method as claimed in claim 31~~35~~, wherein the fluid is caused to travel in a first spiral direction and subsequently in a second opposite spiral direction.
38. (previously presented) A method as claimed in claim 32, wherein a float collar having a valve is provided in the conduit above the inclined passage, and wherein the passage has a greater cross-sectional area than the cross-sectional area of the valve so that the fluid flows without restriction into the passage.
39. (previously presented) A method as claimed in claim 31, including the step of inducing turbulence into the fluid.
40. (previously presented) A method as claimed in claim 37, wherein turbulence is induced by causing the fluid to change direction from the first spiral direction to the second spiral direction.
41. (previously presented) A method as claimed in claim 32, wherein the inclined passage is defined by at least one body member having formations thereon and wherein a shroud having apertures in its surface is provided around the body member, the method including the step of passing cement through the passage, so that some of the cement exits the passage via the apertures to cement the body member to the conduit.

42. (new) Apparatus for controlling the flow of fluid into a borehole through a conduit, the apparatus comprising: a decelerating means adapted to be positioned within the conduit for slowing down the flow of fluid through the conduit, wherein the decelerating means comprises a passage in the apparatus, the passage including at least one spiral portion and an axial portion at each of its ends; wherein the passage is defined by at least one body member having formations thereon; and wherein the apparatus also includes a shoe adapted for engagement with the at least one body member.

43. (new) A flow control assembly comprising:

- a downhole conduit, including a shoe at a lower end thereof; and

- a flow control insert located within the downhole conduit, the flow control insert comprising a decelerating means adapted to slow down the flow of fluid through the downhole conduit, wherein the decelerating means comprises a passage which includes at least one spiral portion and an axial portion at each of its ends.